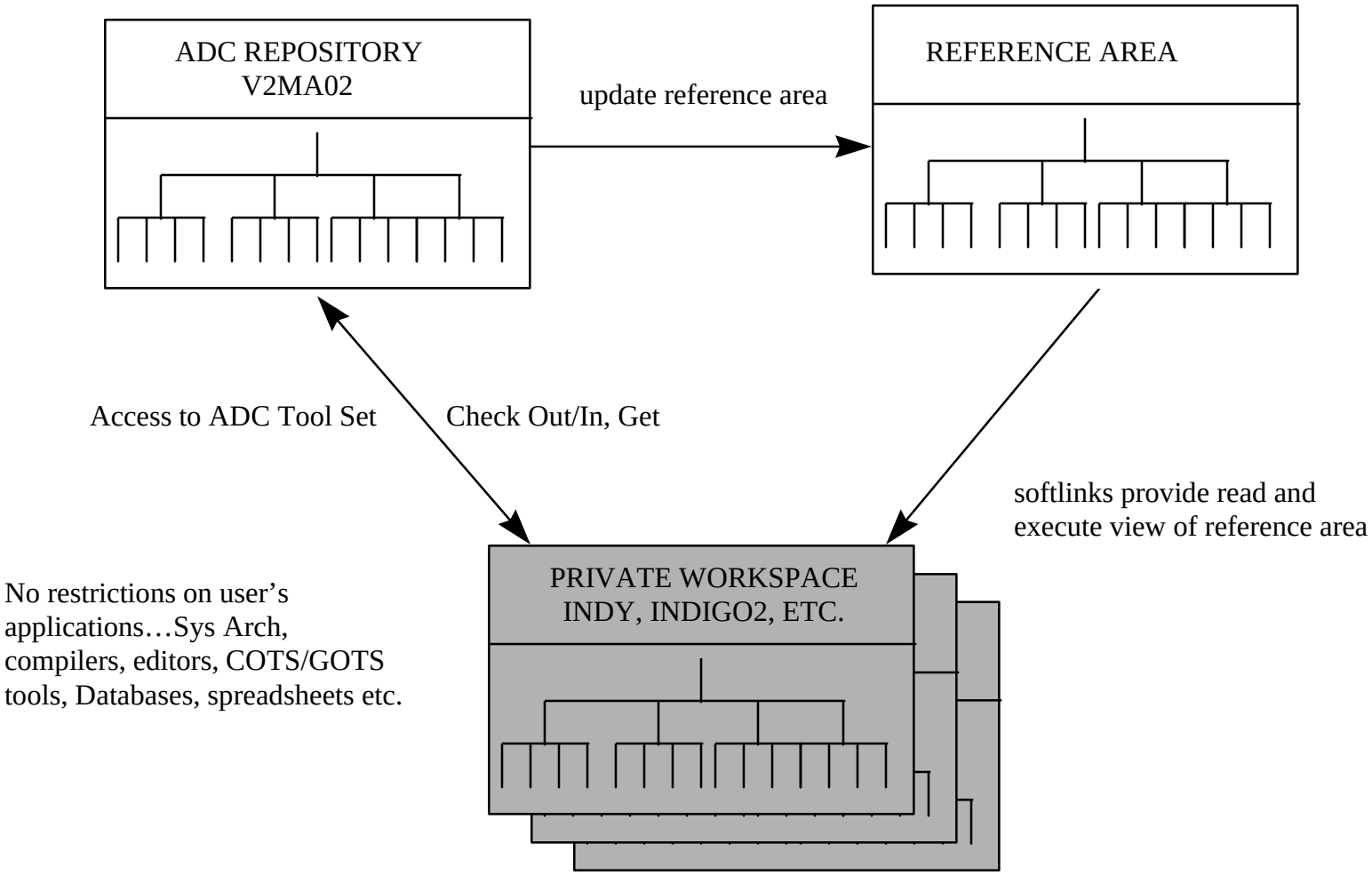
ADC/PRO OVERVIEW

- **ADC/PRO is the acronym for Aide-de-Camp Pro, a software configuration management (SCM) tool from TRUE SOFTWARE...we call it just - ADC**
- **Provides users with change tracking and control of the product development process ...automated for many users**
- **Provides users with a Product Development Environment (PDE)...automated for many users. See Figure 1**
- **Not just software, but engineering products, documents, hardware lists, test suite**
- **The product baseline is automatically maintained for many users. For software development, the "best" code is always available to users.**
- **Ease of use - virtually no admin for users. Easy to use GUI and a few scripts**
- **Provides "locking" capability and conflict detection resolution features. Either preventing concurrent updates or detecting conflicts and providing easy to use resolution tools.**
- **Allows promotion groups to be defined (i.e. development, integration test, system test, shadow mode, operations)**

THE CCS PRODUCT DEVELOPMENT ENVIRONMENT



* Check Out - Place a writable file(s) in private space; overrides softlinks to the same file in reference area
* Check In - Puts a new or modified file(s) from private space into the archive with associated cset
* Get - Place a readable/executable file(s) in private space; overrides softlinks to the same file in reference area

Figure 1

VISION 2000 IMPLEMENTATION of ADC/PRO

- **The CCS Product Development Environment (PDE)**
- **Supports a users' "work environment" by linking a users' private product development area (workspace), with the archive and all of its' tools/functionality, and read/execute view of all files relevant to his product development (reference area).**
- **The ADCPRO Product Development CM tool is installed on the dedicated server v2ma02 on the COLO facility**
- **The repositories reside on the server**
- **ADC clients will run on SGI, PC, SUN, (ALPHA)**
- **Reference areas are located on the development (and test) Challenge**
- **Work areas are located on the development (and test) SGI workstations, SUN workstations, PC/95, and later on DEC ALPHAs, (No MACS)**
- **The login and resource control files and path statements for all users will be modified.**
- **60 unique users - OS account names, no passwords**
- **Future implementations may have repositories reference areas, and workspaces located at BLDG.23 for DEV FEP, SHADOW MODE, and CO-LO INT string**
- **Promotion and deployment procedures are being worked**
- **Some ADC implementation/configuration details at VISION for the near future will require manual intervention**

ADC/PDE USER GUIDELINES

REPOSITORY

- **The repository is like a database that stores files and changes made to them.**

- **For the CCS software products, derived from the level 2 or 3 Data Flow Diagram process definitions with additions to support class libraries and COTS and GOTS.**

- **Other repositories to support CCS hardware, engineering and project documentation products have/will be created**

- **The repositories are the archive of CCS product development. They contain the different versions of a the CFTs' system/subsystem directory structure and files**

REFERENCE AREA

- **Reference areas will contain a designated read and execute copy/version of a CFTs' repository... available/viewable (softlinked) to all team members' private work space. Probably on a CFT basis. This area will be updated at a time interval determined by the project lead/release lead with a new version determined by the project lead/release lead. See Figure 2**

THE CCS STRAWMAN REPOSITORY STRUCTURE

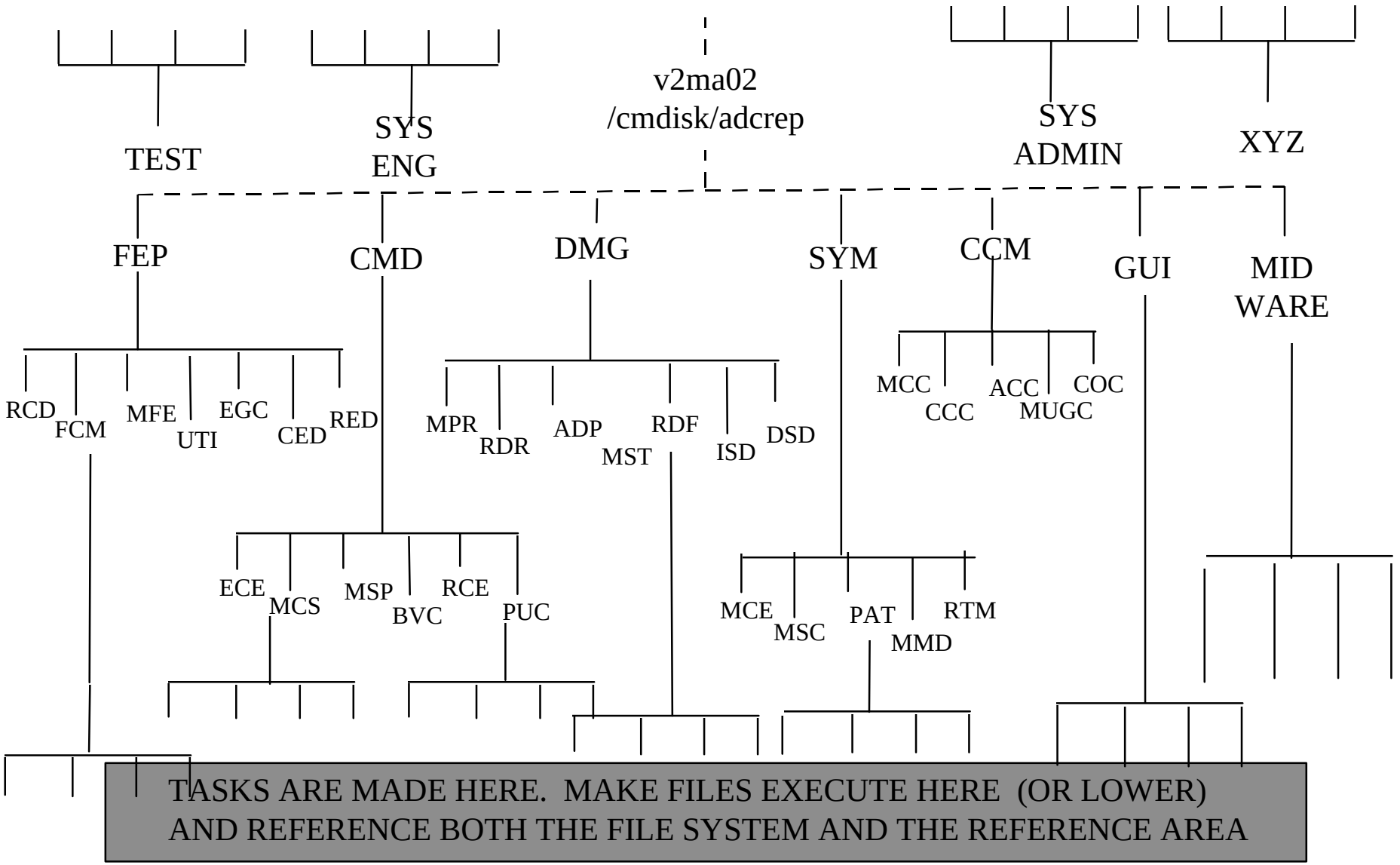


FIGURE 2

PRIVATE WORK SPACE

- **Each user designates their private work space(s) on the Challenge or on local/users' workstations/PCs. A private work space is a file system structure that has softlinks to the reference area….. a user always has an effortless working view of the approved version to work against.**

- **Users "Check Out" (get with a lock) files from the repository into their work area, producing a local, writable copy of the file. ADC creates a change set....more on this later**

- **Any tool/application i.e., edit, compile, test tools can be used.**

- **Makefile file references, executed from the private work space, are resolved first through the local copy then through softlinks to the reference area**

- **Users "Check IN" the modified file(s) into the ADC server.**

- **The change set is "frozen". ADC maintains the users' personal view of the repository through out this process.**

WORK ENVIRONMENT

- **ADC maintains environment variables that link he repository, reference area, and private work space together as a work environment**

ADC/PRO MANAGES OBJECTS

- **Users manage software changes based on logical purpose and function...not file deltas.**

- **The rationale for each code change is captured in a change set (cset) as physical edits (one or more files), user descriptions (e.g. bug fix, new feature, CR#), and/or user designated attributes and relationships**

- **Csets have attributes and relationships. File names are available, but most changes will be managed as csets**

- **ADC scanners capture code dependencies for C, C++, FORTRAN, ADA, JAVA, HTML, and GIF**

- **ADC provides user information tools that recognize code based on these characteristics ... Finding and migrating existing code is/can be easy**

USERS INFORMATION

- **A powerful search tool provides information about a repository based on any valid object, attribute, or relationship. Hot links are supported.**

- **A graphical representation of the repository version tree provides a clear picture of the relationship of the versions and branches. Hot links are supported**

- **A Merge window provides point and click selection of versions for merging**

- **Csets can be migrated to any version at will**

- **Conflicts are automatically detected and a conflicts are displayed in synchronized adjacent windows for resolution.**

USER INTERFACE to ADC/PRO

GETTING STARTED

- **You will need an ADC account . See the ADC Admin (Yuri)**

- **Mostly an easy to use GUI. Some start, stop, and reset server scripts**

- **Run the tutorial. A tutorial booklet and code are available. The tutorial covers most user features and some admin features.**

- **Detailed instructions on managing the PDE are provided in the ADC/Pro Reference Manual Command Line Interface, the ADC/Pro Tutorial, and the ADC/PRO for Windows User's Guide. These documents are available for reference in the VISION 2000 Co-Location Facility Rm.# 80. Detailed procedures for CCS CM activities are under development.**

- **POINTS OF CONTACT for all ADC user account and usage:**
  Prime: Yuri Frankel room 80, ext. 7475
  Backup: Paul Capotosto room 80, ext. 7448

THE CCS MULTI REFERENCE AREAS

CM_PROCEDURES/MULTI_REF_AREAS.ppt
Paul Capotosto

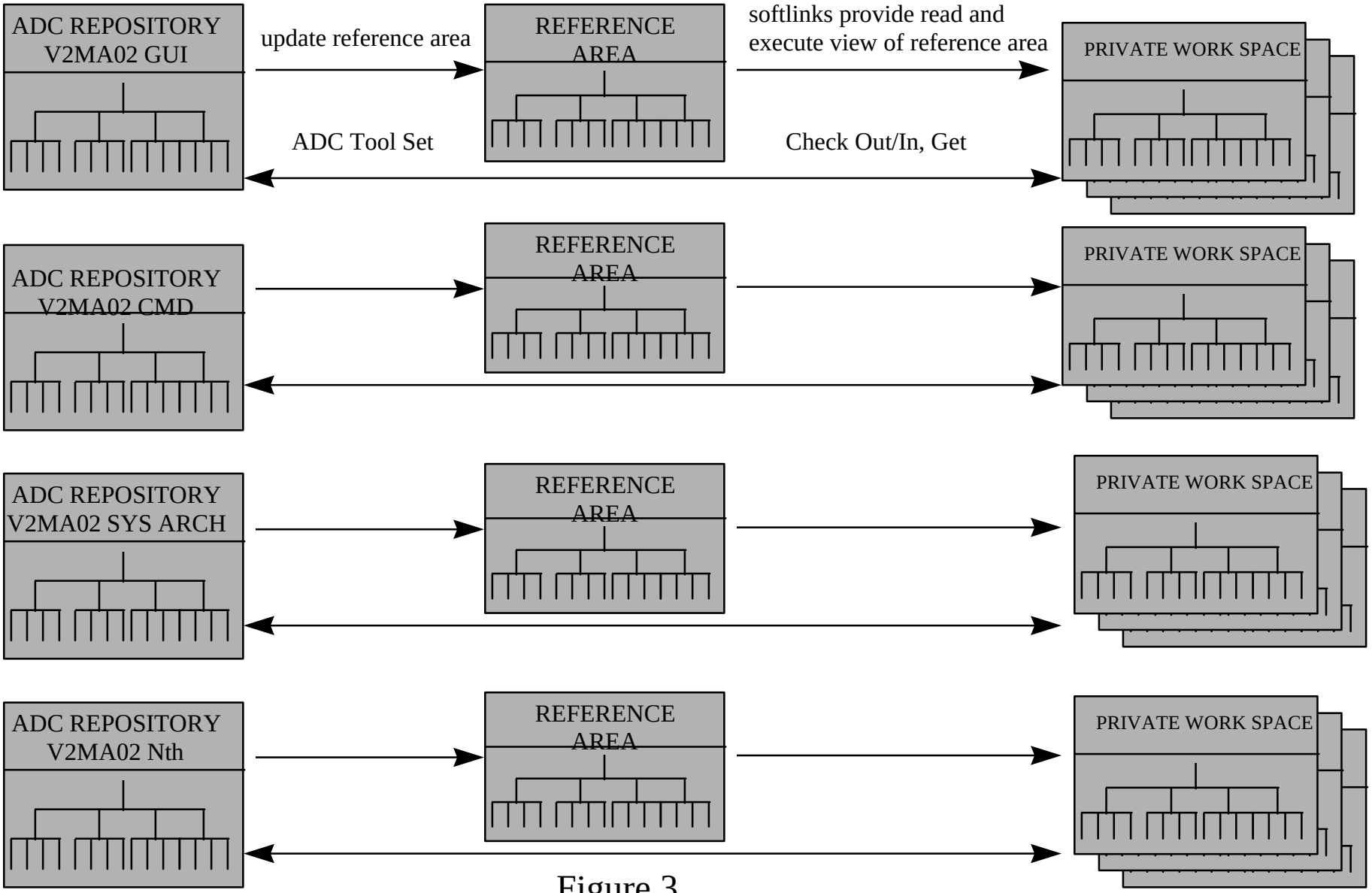


Figure 3